

YOUNG AND RESTLESS Juvenile male grizzly number 11072847 was photographed by a camera trap in the Sapphire Range in June 2021 during a U.S. Fish & Wildlife Service hair snare DNA study.

wide-ranging male grizzly bear that tried unsuccessfully to cross Interstate 90 northwest of Deer Lodge nearly 50 times has demonstrated what wildlife biologists have known for years: Freeways are major barriers that impede bears and other wildlife from reaching food or moving between seasonal habitats.

In some cases, busy transportation corridors also stymie wide-ranging movements that lead to essential genetic mixing and population health. "Bear populations that exchange individuals are more resilient because they can maintain genetic diversity, adapt to changing conditions, and recover from threats like fire or disease," says Cecily Costello, FWP bear biologist in Kalispell. For decades, the isolated grizzly bear populations in the lower 48 states had little opportunity for interchange. "But recent population growth has increased the like-

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lihood of successful movements between Deer Lodge and Drummond. ecosystems," Costello says.

The biologist explains that the grizzly blocked by I-90 was a sub-adult that had left its mother. Most juvenile male bears embark on wide-ranging movements to find a new home, known as "natal dispersal." Females generally stay fairly close to their mother's range. "Having evolved to separate males from their female kin and reduce inbreeding, these dispersal movements also provide the best hope for population connectivity," Costello says.

How does the bear cross the road?

Our notable wanderer, who likely was born in 2016, left his natal range in the Mission Mountains and by 2020 reached an area south of I-90 in the Flint Creek Range. He got into trouble by raiding a bird feeder and then, a few days later, killing domestic ducks at a private home south of Gold Creek, between

"That area is outside of current grizzly bear distribution, so many landowners aren't aware of the importance of keeping food attractants from bears," says FWP bear specialist Rory Trimbo, who is based in Anaconda. Trimbo trapped and radiocollared the bear in October 2020.

Trimbo relocated the 360-pound male, officially known as number 11072847, to the edge of the Scapegoat Wilderness north of Lincoln. The bear stayed only a few weeks before heading south again.

Costello mapped his locations and was struck by what she saw (see map at right). "Over 29 days in fall of 2020 and 24 days in spring of 2021, he appeared to have attempted to cross Interstate 90 at least 46 times," she says. The bear finally made it past the obstacle in early May 2021, "probably by walking or even swimming under a set of highway and railroad bridges crossing

the Clark Fork River," Costello says.

Except for a brief excursion to the Sapphire Range, the bear stayed around the Flint Creek Range for the rest of 2021 and made no attempts to cross back north of I-90. "His fidelity to this area may indicate he selected it as his new home and had concluded his dispersal movement prior to his capture. This would certainly explain his persistent attempts to get south of the interstate," Costello says.

Finding unobstructed pathways between ecosystems is already difficult for bears because of increased human development. "With their high-traffic volumes, freeways add an additional challenge," says Costello. "Verified sightings of a few grizzlies west of I-90 and I-15 in western Montana show us that some bears have managed to negotiate interstates, but the GPS data from this individual has given us insight into just how hard it can be."

Safety for bears—and drivers

Lauri Hanauska-Brown, a senior wildlife manager for FWP in Helena, says the male bear's journey shows the importance of find-

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ing ways for grizzlies and other wildlife to cross freeways. "If we want to maintain the connectivity essential for healthy populations, we need to create passages at key crossings," she says. According to FWP records, about a half-dozen grizzlies are killed in vehicle and train collisions per year in Montana.

Hanauska-Brown says effective crossings have been built on the Trans-Canada Highway in Banff National Park and on U.S. Highway 93 on the Flathead Indian Reservation in western Montana. "Bears and other animals regularly use these and other



BLOCKAGE FOR BEARS Increasing traffic on Montana freeways (like this stretch of I-90 near Bozeman) thwarts grizzly movement as bears expand from core habitats in and around Glacier and Yellowstone national parks. The map below shows the movement of one male grizzly in the fall of 2020 and spring of 2021 as it repeatedly tried to cross I-90 near Drummond but was stymied by cars and trucks speeding past.



over- and underpasses" she says.

Hanauska-Brown adds that Montana may soon have opportunities to build similar structures thanks to the federal Infrastructure Investment and Jobs Act passed in late 2021. "The legislation contains hundreds of millions of dollars for states to install structures for wildlife passage that reduce collisions between wildlife and vehicles while improving habitat connectivity, with more than half of the funding going to rural areas,"

she says. "Right now we're working with partners like the Montana Department of Transportation to determine our highestpriority projects."

In time, Hanauska-Brown adds, bears like number 11072847 might be able make their way from one ecosystem to another more easily, while reducing dangerous traffic hazards. "We need safe freeways, but we also need pathways for wildlife to move. We're looking for solutions to have both."

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